

# M905 Display



- Programmable Digital Display Meter
- Multiple output options available
- Casing mounted ABS in option

## DESCRIPTION

Measurement Specialties, Inc. offers comprehensive measurement solutions including electronic signal conditioning and display units.

The M905 is an all-in-one digital meter, supplying the sensor with power and providing general purpose 4½ digit readout for strain gauge based transducers (mV, V) or process signals (mA, V). Standard features include a tare function, MAX/MIN value detection and storage, and a hold function. Optional relays and analogue outputs can be added to provide control outputs. The RS232 or RS485 option board allows communicating with PLC's or computers.

Through easy front panel or remote programming, the M905 adapts to a wide range of applications and works with most of Measurement Specialties, Inc.'s sensors. Additionally it can be mounted in an ABS case.

## FEATURES

- Suited for Process or Strain Gauge Type Sensors
- Display: -19999 to 19999
- Compact 96x48x60 mm Housing
- Front Panel Programming
- 11 point scaling
- Plug-in Option Boards

## APPLICATIONS

- Instrumentation Laboratory
- Test stand
- Process monitoring
- Rack Mounts

# M905 Display

## PERFORMANCE SPECIFICATIONS

Ambient Temperature: 20±1°C (unless otherwise specified)

### General Characteristics

Dimensions (L x W x H)	96 x 48 x 60 mm [3.9 x 1.9 x 2.4 in]
Panel Cut out	92 x 45 mm [3.6 x 1.8 in]
Operating Temperature Range	-10°C to 60°C [14 to 140°F]
Storage Temperature	-25°C to 85°C [-13 to 185°F]
Relative Humidity	<95% at 40°C [104°F]
Weight	160 g [0.35lb]
Mounting clips supplied	
Case Material	UL94 V-0 Polycarbonate
Front Panel Protection	IP65

### Electrical Characteristics

Operating power M905	85-265 Vac, 11-300Vdc
Optional M905-M6	10.5-70Vdc, 22-53 Vac
Consumption	5W w/o options, 8W max

### Display

Main Display	5 Digits, programmable colours (red, green, amber), 14mm high digits
Front Panel LEDs	4 threshold indicators, 4 function indicators [Tare, Peak, Valley, Hold]
Update Rate	20/s

### A/D Conversion

Resolution	±15bits
Read Rate	20/s

### Process/Potentiometric Signal Conditioning

Input	±10Vdc or ±20mA
Resolution	1µV
Input Impedance	1MΩ or 12.1Ω
Sensor Excitation	5, 10 Vdc or 24 Vdc

### Strain Gauge Signal Conditioning

Input	±15mV, ±30mV, ±150mV
Resolution	1µV
Input Impedance	100MΩ
Sensor Excitation	10Vdc

### Accuracy

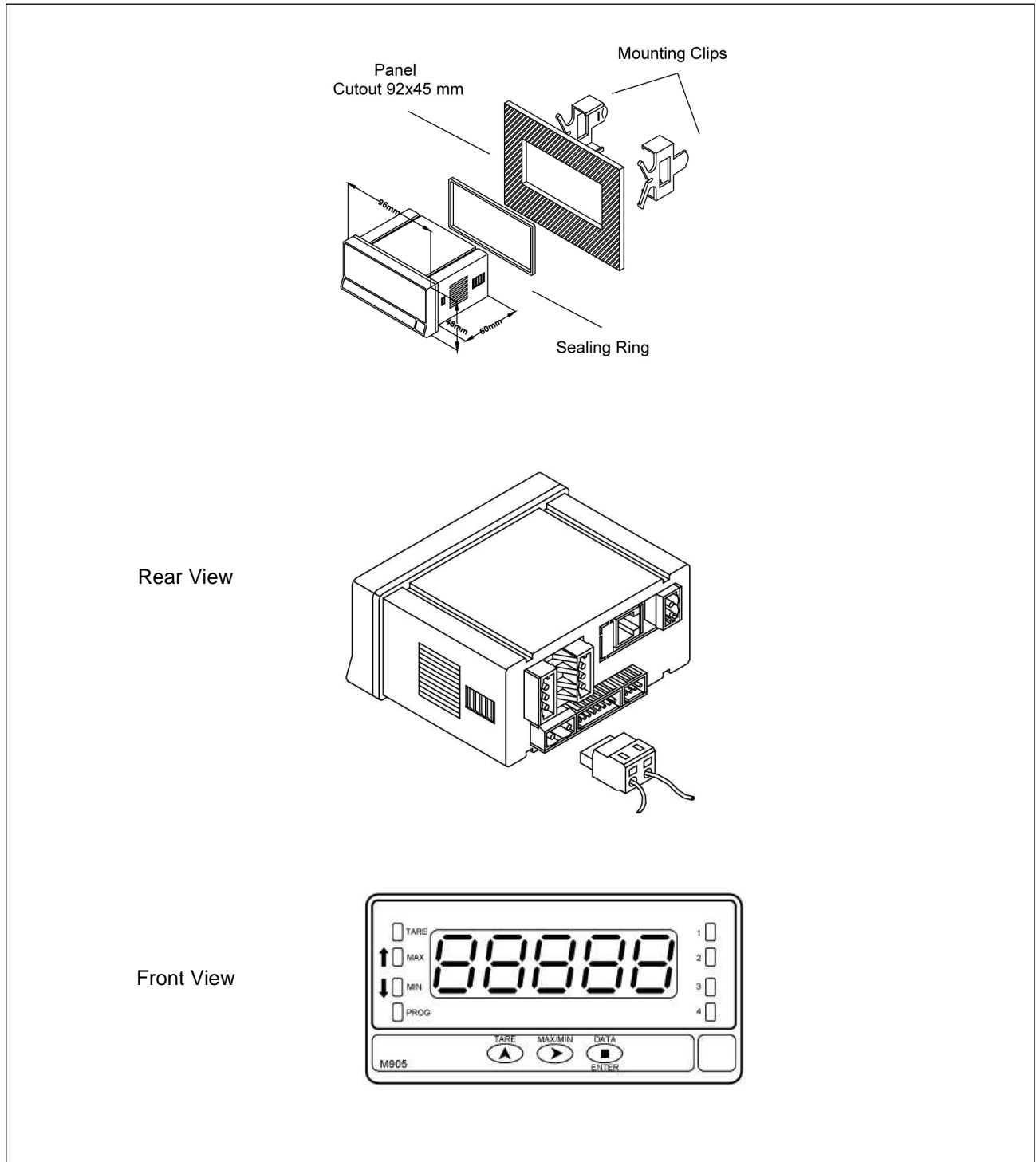
Temperature Coefficient	100ppm/°C
Warm Up Time	10min

### Standard Features

Tare	Accomplished by operating front panel key or remote programming
Peak Max/Min	Detection and storage since last reset
Hold	Hold the current display value
Reset	Back to default TARE and PEAK values
PC-Configurable	Software supplied on request with options RS2 or RS4

# M905 Display

## DIMENSIONS & WIRING SCHEMATIC (IN METRIC AND IMPERIAL)



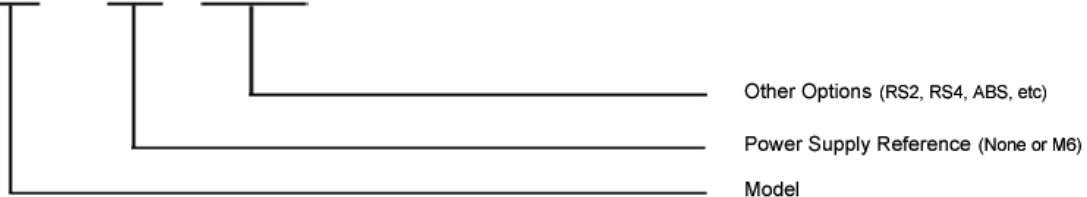
# M905 Display

## OPTIONS

<b>M6</b> : Low Voltage
<b>NMV</b> : Voltage output 0-10Vdc
<b>NMA</b> : Current output 4/20mA
<b>2RE</b> : 2 Threshold relays SPDT
<b>4RE</b> : 4 Threshold relays SPST
<b>4OP</b> : 4 NPN setpoint outputs
<b>4OPP</b> : 4 PNP setpoint outputs
<b>RS2</b> : RS232 interface
<b>RS4</b> : RS485 interface
<b>ABS</b> : Casing including front panel with on/off switch

## ORDERING INFO

M905 - M6 - /RS2



### NORTH AMERICA

Measurement Specialties, Inc.  
1000 Lucas Way  
Hampton, VA 23666  
USA  
Tel: 1-757-766-1500  
Fax: 1-757-766-4297  
[pvg.cs.amer@meas-spec.com](mailto:pvg.cs.amer@meas-spec.com)

### EUROPE

Measurement Specialties  
(Europe), Ltd.  
26 Rue des Dames  
78340 Les Clayes-Sous-Bois,  
France  
Tel: +33 (0) 130 79 33 00  
Fax: +33 (0) 134 81 03 59  
[pfg.cs.emea@meas-spec.com](mailto:pfg.cs.emea@meas-spec.com)

### ASIA

北京赛斯维测控技术有限公司  
北京市朝阳区望京西路48号  
金隅国际C座1002  
电话 : + 86 010 8477 5646  
传真 : + 86 010 5894 9029  
邮箱 : [sales@sensorway.cn](mailto:sales@sensorway.cn)  
<http://www.sensorway.cn>

The information in this sheet has been carefully reviewed and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Furthermore, this information does not convey to the purchaser of such devices any license under the patent rights to the manufacturer. Measurement Specialties, Inc. reserves the right to make changes without further notice to any product herein. Measurement Specialties, Inc. makes no warranty, representation or guarantee regarding the suitability of its product for any particular purpose, nor does Measurement Specialties, Inc. assume any liability arising out of the application or use of any product or circuit and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Typical parameters can and do vary in different applications. All operating parameters must be validated for each customer application by customer's technical experts. Measurement Specialties, Inc. does not convey any license under its patent rights nor the rights of others.